

# Re-Refined Lubricants

## A Simple Solution

Returning used oil is simple and safe. By using and promoting the use of re-refined lubricants you will be:

- Helping to protect the environment against needless pollution.
- Preserving a non-renewable resource—oil.
- Demonstrating your commitment to a cleaner environment through recycling and proper waste management.

## Ethics on Re-Refined Oil

Using re-refined oil is a simple way for your jurisdiction to show that purchasing materials with recycled content is “doing the right thing.” There are high quality re-refined lubricants readily available at competitive prices.

Re-refining is an energy-efficient and environmentally beneficial method of managing the used oil waste stream. Less energy is required to produce a gallon of re-refined base stock than a gallon of crude oil. Lubricating oil does not wear out; it simply becomes dirty as it does its job. Once water and contaminants are removed from collected used oil, it is returned to a full and useful life as re-refined oil. Using re-refined oil closes the recycling loop, as opposed to producing non-recoverable products such as low-grade fuel.

## Re-Refined Oil Quality

The American Petroleum Institute (API) licenses and certifies engine oils that meet major engine manufacturer performance requirements for Ford, General Motors, DaimlerChrysler; the Japan Automobile Manufacturers Association (JAMA); and the Engine Manufacturers Association (EMA).<sup>1</sup> Manufacturers represented by JAMA includes Daihatsu, Hino, Honda, Isuzu, Mazda, Mitsubishi, Nissan, Suzuki, and Toyota.<sup>2</sup> The

EMA members include Briggs & Stratton Corporation, Caterpillar Inc., Cummins Inc., Deere & Company, and Detroit Diesel Corporation.<sup>3</sup>

Engine manufacturers rely on the API’s certification to identify engine oils that will meet their performance requirements. The API subjects re-refined oil products to the same stringent

performance standards that are applied to virgin-oil products.<sup>4</sup> The API, which includes members that are manufacturers of

new cars and new engines, recommends the use of API-certified oil. Given that the performance tests for re-refined oil and virgin oil are the same, the products are equivalent.<sup>5</sup>



Courtesy: California Highway Patrol

## Purchase Re-Refined Oil Through the State Contract

Local governments, State colleges and universities, and correctional facilities can purchase re-refined oil for their fleet vehicles through the State’s Purchasing Program. California Government Code 10324 defines a local government as a city, county, district, or other local governmental body or corporation empowered to expend public funds.

The California Department of General Services (DGS), through its existing State Lubrication Contract, has re-refined oil lubricants in most all oil grades and container sizes. In most cases, pricing is at or below virgin oil prices. When re-refined oil is at a higher cost, California Integrated Waste Management Board (CIWMB) Used Oil Block Grant funds can be used to pay the cost differential.

## Re-Refined Oil Facts

- 2.5 quarts of re-refined lubricating oil can be produced from 1 gallon of used oil, while 42 gallons of crude oil are necessary to produce this same amount.<sup>6</sup> Recycling used oil extends the life of a non-renewable natural resource.
- Re-refined oil prices are competitive to equivalent virgin oil products.



- Federal regulations state that re-refined oil is equivalent to new oil when meeting the API Standards.<sup>7</sup>
- According to the U.S. Department of Defense, purchasing re-refined engine oil will reduce air pollution by encourage re-refining of used oil instead of disposing the oil through burning. Purchasing re-refined oil will also reduce the dependence on foreign oil. Finally, re-refined oil will meet manufacturers' warranty requirements.<sup>8</sup>
- According to the U.S. Department of Defense, Defense Supply Center Richmond (DSCR), "Re-refined oil is subject to the same stringent refining, compounding, and performance standards as virgin oil. Extensive laboratory testing and field studies conducted by the National Bureau of Standards (now the National Institute of Standards and Technology), the U.S. Army, the U.S. Department of Energy, the U.S. Postal Service (USPS), and EPA concluded that re-refined oil is equivalent to virgin oil, passes all prescribed tests, and can even outperform virgin oil."<sup>9</sup>
- State agencies annually purchase approximately 189,890 gallons of re-refined oil.<sup>10</sup>

- The U.S. armed forces, U.S. Postal Service, and the National Park Service use re-refined oil in their vehicle fleets.
- Executive Order 13101 mandates all federal agencies to take immediate steps to procure re-refined oil.<sup>11</sup>
- Buying re-refined oil reduces our dependence on imported oil, reduces the depletion of natural resources, and helps create jobs.
- Improperly dumped motor oil releases about 25 times more oil into the environment than spills from all modes of oil transportation combined—tankers, pipelines, barges, rail, and trucks.<sup>12</sup>
- "Rather than using virgin oil, some DaimlerChrysler plants have been using quality, re-refined oils. These oils meet the same standards for performance and composition as their virgin counterparts. The Transmission Plant in Kokomo, Ind., the Stamping Plant in Twinsburg, Ohio and the Engine Plant in Kenosha, Wis. have all instituted cost-saving programs that use re-refined oils. The program is expected to save the company around \$500,000 the first year and \$3 million the second. Additional products can be converted to re-refined oil with the potential for further cost savings."<sup>13</sup>

## California Public Contract Code: Re-Refined Oil and Recycled Product Procurement

Local agencies are required to purchase re-refined lubricants and products containing recycled content. The following excerpts from the California Public Contract Code, effective January 1994, require local government agencies to purchase re-refined oil and recycled products:

"PRC 10409. Every local agency, as defined in Sec. 17518 of the Government Code, shall purchase lubricating oil from the seller whose oil product contains the greater percentage of recycled oil, if the availability, fitness, quality, and price of the recycled-oil product is otherwise equal to, or better than, virgin-oil products. This section shall

not prohibit a local agency from purchasing virgin-oil products for exclusive use in vehicles whose warranties expressly prohibit the use of products containing recycled oil. As added by AB 1570 (Sher), Stats. 1989, c. 1226, and amended by AB 2076 (Sher), Stats. 1991, c. 817, and AB 3073 (Sher), Stats. 1992, c. 1101.”

“PRC 12210. (a) Fitness and quality being equal, all local and state public agencies shall purchase recycled products instead of non-recycled products whenever available at no more than the total costs of non-recycled products. All local public agencies may give preference to the suppliers of recycled products. All local public agencies may determine the amount of this preference. As added by AB 4 (Eastin), Stats. 1989, c. 1094.”

## Purchasing Details

Re-refined lubricants can be purchased through the DGS State Lubrication Contract:

State Contract # 1-04-91-03.

Contract Name: Lube, Oil, and Grease.

Effective Dates: Three-year contract,  
December 22, 2004-December 31, 2007..

Using the State contract number, purchase directly from participating distributors.

A list of distributors and contact information is available on the DGS website at [www.pd.dgs.ca.gov/](http://www.pd.dgs.ca.gov/). Click on the “Contracts” link on the “Quick List” section on the right side of screen. In the search field at the bottom of the screen, enter the contract number, 1-04-91-03. Click on the link to the “Lube, Oil, and Grease” contract. Questions about purchasing through this statewide contract can be referred to the primary contact, listed under “Buyers Name,” Sherry Jacobs at (916) 375-4450.

## Contract Price Information

For a complete price listing refer to the DGS website: [www.documents.dgs.ca.gov/pd/contracts/LubeOilGrease/PricingAwardArea.pdf](http://www.documents.dgs.ca.gov/pd/contracts/LubeOilGrease/PricingAwardArea.pdf). A sample price comparison for 10W-30 re-refined lubricating oil in a 55-gallon drum is as follows:

## Delivery Area 1, 4, 5—\$3.79.

**Area 1** includes the Counties of Del Norte, Humboldt, Mendocino, and Lake.

**Area 4** includes the Counties of Sonoma, Napa, Solano, Marin, Contra Costa, San Francisco, Alameda, San Mateo, and Santa Clara.

**Area 5** includes the Counties of San Benito, Monterey, San Luis Obispo, Santa Barbara, and Santa Cruz.

**Delivery Area 2—\$4.94** for the Counties of Siskiyou, Modoc, Trinity, Shasta, Lassen, Tehama, and Plumas.

**Delivery Areas 3—\$3.64** for the Counties of Glenn, Butte, Sierra, Colusa, Sutter, Yuba, Nevada, Placer, Yolo, El Dorado, and Sacramento.

**Delivery Area 6—\$3.67** for the Counties of Madera, Fresno, Kings, Tulare, and Kern.

**Delivery Areas 7—\$3.74** for the Counties of Ventura, Los Angeles, and Orange.

**Delivery Area 8—\$4.19** for the Counties of Riverside and San Bernardino.

**Delivery Area 9, 11—\$4.80.**

**Area 9** includes the Counties of Inyo and Mono.

**Area 11** includes the Counties of San Diego and Imperial.

**Delivery Area 10—\$3.71** for the Counties of Amador, Alpine, San Joaquin, Calaveras, Tuolumne, Stanislaus, Mariposa, and Merced.

## Using Block Grant Funds

Block Grant funds can be used to pay the cost differential between re-refined oil and virgin oil. The purchase of re-refined oil for use in your jurisdiction’s fleet completes the recycling loop for the used oil waste stream. Using re-refined oil sustains a renewable resource that would otherwise be burned as ship fuel, or other non-renewable products. Promoting the use of re-refined oil builds public confidence in the dependability and practicality of using re-refined oil.

Frequently, block grant funds are used to expand the use of re-refined oil by fast lubes, auto repair shops, and auto part stores through promotions such as advertising, coupons, and discounts. Contact your grant manager for approval.

For more information about re-refined oil, see [www.ciwmb.ca.gov/UsedOil/Rerefined/](http://www.ciwmb.ca.gov/UsedOil/Rerefined/).

## Endnotes

<sup>1</sup> “Consumers Look for the Products that Carry the API Quality Marks,” *American Petroleum Institute* (March 11, 2003) <<http://api-ec.api.org/frontpage.cfm>>.

<sup>2</sup> “Member Manufacturers,” Today’s JAMA (March 11, 2003) <[http://e450r.jama.or.jp/e\\_press/about/index.html](http://e450r.jama.or.jp/e_press/about/index.html)>.

<sup>3</sup> “Engine Manufacturers Association 2003 MEMBERSHIP ROSTER,” *Engine Manufacturer Association* (March 11, 2003) <[www.engine-manufacturers.org/](http://www.engine-manufacturers.org/)>.

<sup>4</sup> “Consumers Look for the Products that Carry the API Quality Marks,” *American Petroleum Institute* (March 11, 2003) <<http://api-ec.api.org/frontpage.cfm>>.

<sup>5</sup> Title 16, Code of Federal Regulations, Section 311.5.

<sup>6</sup> “Pollution Prevention/Good Housekeeping for Municipal Operations,” *U.S. Environmental Protection Agency*, National Pollution Prevention Discharge System, March 12, 2003 <[http://cfpub.epa.gov/npdes/stormwater/menuofbmps/poll\\_17.cfm](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/poll_17.cfm)>.

<sup>7</sup> Title 16, Code of Federal Regulations, section 311.5.

<sup>8</sup> Defense Logistics Agency Offers Re-refined Motor Oil,” *U.S. Environmental Protection Agency* (March 12, 2003) <[www.epa.gov/opptintr/epp/ppg/case/dlaoil.htm](http://www.epa.gov/opptintr/epp/ppg/case/dlaoil.htm)>.

<sup>9</sup> “DSCR’s Re-refined Motor Oil Programs,” U.S. Defense Supply Center Richmond (March 12, 2003) <[www.dscr.dla.mil/products/pol/refined.htm](http://www.dscr.dla.mil/products/pol/refined.htm)>.

<sup>10</sup> “How Are We Doing?” *State Agency Buy Recycled Campaign* (April 19, 2004) <[www.ciwmb.ca.gov/BuyRecycled/StateAgency/Status.htm](http://www.ciwmb.ca.gov/BuyRecycled/StateAgency/Status.htm)>.

<sup>11</sup> U.S. Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*, September 14, 1998 <[www.epa.gov/fedsite/eo13101.htm](http://www.epa.gov/fedsite/eo13101.htm)>.

<sup>12</sup> “Recycling and Reclamation,” *American Petroleum Institute* (March 11, 2003) <<http://api-ec.api.org/frontpage.cfm>>.

<sup>13</sup> “Eco-Initiatives—Good ideas make a difference,” *DaimlerChrysler* (March 11, 2003) <[www.daimlerchrysler.com/index\\_e.htm?/environ/report2002/i\\_e.htm](http://www.daimlerchrysler.com/index_e.htm?/environ/report2002/i_e.htm)>.

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